

--This application is a divisional of co-pending patent application Serial No. 08/120,601
filed July 13, 1993.--

In the Claims:

~~Please cancel claims 1-17, without prejudice or disclaimer.~~

Please add the following claims:

2126
18.
19. A process for screening a candidate substance for its ability to bind to an opioid receptor comprising:

- (a) providing a recombinant opioid receptor polypeptide encoded by a nucleic acid sequence comprising 25 contiguous nucleotides of SEQ ID NO:1 or SEQ ID NO:3;
- (b) contacting the substance with the recombinant opioid receptor polypeptide; and
- (c) detecting the ability of the candidate substance to bind to the recombinant opioid receptor polypeptide.

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19. The process of claim 18, wherein the nucleic acid sequence comprises 40 contiguous nucleotides of SEQ ID NO:1 or SEQ ID NO:3.

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20. The process of claim 19, wherein the nucleic acid sequence comprises 55 contiguous nucleotides of SEQ ID NO:1 or SEQ ID NO:3.

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21. The process of claim 20, wherein the nucleic acid sequence comprises 70 contiguous nucleotides of SEQ ID NO:1 or SEQ ID NO:3.

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22. The process of claim 21, wherein the nucleic acid sequence comprises SEQ ID NO:1 or SEQ ID NO:3.

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23. The process of claim 22, wherein the nucleic acid sequence comprises SEQ ID NO:1.

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The process of claim 22, wherein the ~~nucleic~~ acid sequence comprises SEQ ID NO:3.

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The process of claim ²¹20, wherein detecting the ability of the candidate substance to bind to the recombinant opioid receptor polypeptide involves measuring (i) binding ability; (ii) the ability of the recombinant opioid receptor polypeptide to bind the candidate substance; (iii) ability of candidate to activate ion channels in a cell membrane; or (iv) modulation of ion channels in the cell membrane.

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The process of claim ²¹20, wherein recombinant opioid receptor polypeptide is chimeric.

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A process for screening a candidate substance for its ability to bind to an opioid receptor comprising:

- (a) expressing a recombinant opioid receptor polypeptide encoded by a nucleic acid sequence comprising 25 contiguous nucleotides of SEQ ID NO:1 or SEQ ID NO:3;
- (b) contacting the candidate substance with the recombinant opioid receptor polypeptide; and
- (c) detecting the ability of the candidate substance to bind to the recombinant opioid receptor polypeptide.

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The process of claim 27, wherein the nucleic acid sequence comprises 40 contiguous nucleotides of SEQ ID NO:1 or SEQ ID NO:3.

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The process of claim 27, wherein the nucleic acid sequence comprises 55 contiguous nucleotides of SEQ ID NO:1 or SEQ ID NO:3.

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The process of claim 27, wherein the nucleic acid sequence comprises 70 contiguous nucleotides of SEQ ID NO:1 or SEQ ID NO:3.

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The process of claim ²⁵27, wherein the nucleic acid sequence comprises SEQ ID NO:1.